

DR. MICHAEL MURRAY'S

NATURAL LIVING NEWS

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CAN PROBIOTICS PROMOTE WEIGHT LOSS?

Could weight loss be as simple as taking the right probiotic supplement? Based on a growing body of evidence, the answer is a definite yes.

Now a few human studies are showing that probiotic supplementation can promote weight loss. For example, in a study published last year in the *British Journal of Nutrition*, 125 overweight men and women underwent a 12-week weight-loss diet, followed by a 12-week period aimed at maintaining body weight. Throughout the entire study, half the participants took 2 probiotic capsules daily, providing 3.2 billion colony-forming units (CFUs) of *Lactobacillus rhamnosus*, while the other half took a placebo.

After the 12-week diet period, the women in the study had an average weight loss of 9.7 pounds if they were in the probiotic group and 5.7 pounds if in the placebo group. After the 12-week maintenance period, the weight of the women in the placebo group had remained stable, but the probiotic group had continued to lose weight, for a total of 11.5 pounds per person. The women consuming the probiotic supplement lost twice as much weight over the 24-week period of the study. Interestingly, no differences in weight loss were observed among the men in the two groups.

A 2011 study conducted at the Turku University Hospital in Finland provides some additional food for thought. In the study, 159 pregnant women were randomized to receive either *Lactobacillus rhamnosus* (10 billion CFUs) or a placebo for four weeks before expected delivery and six months postpartum. The children were followed over their first 10 years. It was found that this short-term probiotic supplementation had a protective effect against excessive weight gain over the first years of life.

As to how gut bacteria influence weight loss, there are several mechanisms that are now well established. Interestingly, they all impact AMPK, the weight regulatory enzyme that is the subject of the feature article in this issue of the magazine. For the best weight-loss probiotic, focus on a multistrain formula to take advantage of the many species associated with positive effects on weight loss. The recommended dosage is 10 to 12 billion CFUs daily.

In good health,

A handwritten signature in black ink that reads "Michael T. Murray, MD". The signature is fluid and cursive.

—Dr. Michael T. Murray
www.DoctorMurray.com

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DR. MICHAEL MURRAY'S

NATURAL LIVING NEWS

2015 ISSUE

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CRANBERRY EXTRACT FOR RECURRENT BLADDER INFECTIONS

Nursing home residents with a history of recurrent bladder infections should be prescribed cranberry extracts. That's the conclusion of a new study that followed 928 nursing home residents who were given cranberry extract or placebo twice daily for 12 months. Those residents who had a history of infection received the most benefit, while there was no difference between the cranberry and placebo groups in individuals who were at low risk of developing infections.

There are a variety of cranberry products to choose from; however, they vary greatly in quality, potency, and activity. The difference is in the level of proanthocyanidins contained, which are the active compounds found in cranberries. Many products on the market are not standardized. For example, they may simply be dried whole-fruit powders, juice powders, and mixed juices with unde-



finied amounts of cranberry juice. And since most commercial cranberry juice cocktails contain only 27 to 33 percent pure cranberry juice, with sugar and water making up the rest of the volume, these drinks are less than ideal choices.

Drinking fresh cranberry juice is a good alternative to commercial juices. But for people experiencing recurrent bladder infections, most experts recommend taking a high-quality extract. On the basis of the clinical studies, the amount of cranberry juice recommended for the prevention of bladder infections is 8 to 10 ounces daily. The dosage for a high-quality cranberry extract (concentrated 36:1) is 500 mg once or twice daily.



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– Dr. Michael Murray

Co-author of *The Encyclopedia of Natural Medicine*

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Supports the body's natural inflammatory response*



Supports joint health and function*



Promotes heart and vascular health*

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[‡]Scientific scrutiny revealed that Theracurmin was more bioavailable on a milligram-to-milligram basis than other leading[‡] enhanced and regular forms of curcumin.

[‡]As measured by SPINS 2014 data.

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GINGER FOR MIGRAINES

A new study demonstrated that ginger is as effective as the leading prescription medication for migraines, but without the side effects. The study, conducted in Iran, included 100 men and women who had suffered migraines for an average of seven years. The participants were randomly assigned to receive either ginger supplements or the drug sumatriptan.

For each headache that occurred during a one-month period, participants recorded the time the headache began, headache severity before taking the drug or ginger, and the degree of pain relief at 30, 60, 90, and 120 minutes, as well as 24 hours, after taking it.

Results showed that ginger was equally as effective as sumatriptan, providing 90 percent relief within two hours after



ingestion. While a small percentage of participants reported side effects with ginger (4 percent experienced minor digestive symptoms), 20 percent of patients taking sumatriptan reported dizziness, drowsiness, or heartburn.

The dosage of ginger used in this study was very low (250 mg dried ginger root). Higher dosages more than likely would have produced even better results. Most clinical studies have used a dosage of 1 gram powdered ginger daily. Fresh ginger at an equivalent dosage would likely yield even better results because it contains active enzymes and higher levels of other, more active constituents. The equivalent dosage would be about 10 grams (one-third ounce) fresh ginger, roughly a quarter-inch slice. The best way to get the benefits of fresh ginger is to juice it. Ginger is a great addition to virtually every fresh fruit and vegetable juice. You can also juice or grate fresh ginger and add it to sparkling mineral water for some real ginger ale.





Have that heavy feeling?

**LOSE IT with
Greenselect® PHYTOSOME**

Green tea extracts are widely used in products for weight management. But, not all green tea extracts are alike. Absorption of the active constituents varies and low absorption reduces efficacy. Only Indena offers proven Greenselect® PHYTOSOME.

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A recent clinical study in overweight individuals with Greenselect® PHYTOSOME combined with a reduced calorie diet resulted in weight loss averaging over 30 lbs in 90 days along with a 12% reduction in body mass index (BMI).¹

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¹ Di Piero F., Menghi A.B., Barreca A., Lucarelli M., Calandrelli A., "Greenselect® Phytosome as an Adjunct to a Low-Calorie Diet for Treatment of Obesity: A Clinical Trial", *Alternative Medicine Review*, Volume 14, Number 2 (2009).

ANOTHER STUDY SHOWS HEART-HEALTH BENEFITS OF CoQ10

Improving energy production within the heart muscle (myocardium) is an important goal with any heart condition, including chronic heart failure (CHF). In a recent study, CoQ10 was shown to not only improve energy production but also reduce the risk of dying from a heart attack or stroke by 43 percent in people diagnosed with CHF.



This multicenter randomized, double-blind trial included 420 patients with moderate to severe CHF who were assigned to take either 100 mg of CoQ10 three times a day or a placebo. In addition to the reduced risk of dying from a heart attack or stroke, the patients taking the CoQ10 also experienced improvements in other biomarkers linked to heart function.



Patients taking the CoQ10 also experienced improvements in other biomarkers linked to heart function.

An important issue for many patients with CHF, especially more serious forms, is that they often fail to achieve adequate serum CoQ10 levels on supplemental ubiquinone (the common form of CoQ10), even at dosages of up to 900 mg per day. These patients may respond better with highly absorbed forms of CoQ10, such as ubiquinol or emulsified ubiquinone. When dealing with a serious health condition like CHF, it makes sense to use the ubiquinol form at 100 mg three times daily.

WHEY PROTEIN BEFORE A MEAL IMPROVES BLOOD SUGAR

Many studies have shown that when people eat whey protein before or between meals, it reduces feelings of hunger and encourages weight loss. Studies have also shown that eating whey protein in small amounts before a meal helps control blood sugar levels after the meal. Results from a new study by researchers from the University of Toronto better define the mechanisms underlying this beneficial effect.

This study compared the effects of taking whey protein, glucose, or water before meals. The researchers found that whey protein slowed the pre-meal gastric emptying rate compared to the control. Glucose, but not whey protein, increased pre-meal blood sugar levels. Compared with glucose, whey protein resulted in higher post-meal levels of glucagon-like peptide-1 (GLP-1) and peptide tyrosine-tyrosine (PYY) and lower insulin concentrations without altering insulin secretion and extraction rates. All of this illustrates how whey protein lowers after-meal blood sugar levels by both insulin-dependent and insulin-independent mechanisms.

While whey protein is effective on its own, even better results occur when it is combined with the revolutionary dietary fiber PolyGlycopleX® or PGX®. Like whey protein, PGX has been shown to produce



While whey protein is effective on its own, even better results occur when it is combined with PGX.

a significant increase in GLP-1. Studies with a synthetic, injectable form of GLP-1 demonstrate significant weight loss in humans as it makes most people feel full, leading to reduced food intake. PGX appears to produce the same effect naturally. Not only does PGX lead to pulses of GLP-1 released into the bloodstream, but as PGX passes throughout the entire digestive tract, it has also been shown to increase the number of the cells that produce GLP-1 within the intestinal tract. This mechanism explains how PGX helps people feel full longer and can thereby stabilize blood sugar and encourage weight loss.

ASHWAGANDHA EXTRACT PROTECTS THE BRAIN

Ashwagandha (*Withania somnifera*) is one of the most valuable plants in Ayurvedic medicine. And thanks to modern science, this ancient plant is more effective than ever. One particular extract of the herb, Sensoril®, is clinically proven to protect against the negative effects of stress and boost brainpower. For example, in a double-blind study conducted at the University of Pittsburgh, Sensoril at a dosage of 250 mg per day improved participants' ability to concentrate by 76 percent and reduced forgetfulness by 57 percent!

How does Sensoril work to promote brain function? One of the ways is with compounds called withanolides, which improve the overall health of brain cells, as well as the communication between brain cells.

A study published in the October 13, 2014, issue of the journal *Public Library of Science* pinpoints another way that Sensoril works. The study demonstrated that when rats were exposed to reduced oxygen supply to the central area of the brain (the hippocampus) and given withanolide A—a key component of Sensoril—their brain cells had higher levels of glutathione than the control group not given the withanolide A. This is significant to humans



because, as people age, blood flow to the hippocampus commonly decreases. That leaves the brain more susceptible to damage due to declining levels of glutathione within the brain cells. Glutathione is a key antioxidant protector and antiaging compound. By raising the glutathione levels in the brain, Ashwagandha extracts like Sensoril may not only improve brain function (including memory) but also protect against degenerative brain disorders like Alzheimer's or Parkinson's disease.

This brain-protecting effect is consistent with the historical use of Ashwagandha as a daily tonic. In human clinical trials, participants taking the recommended dose of Sensoril (125 to 250 mg once or twice daily) experienced no adverse effects. In fact, clinical research has shown that Sensoril's effectiveness in improving health continues to increase the longer it is taken.

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- Strengthens Nails[†]

Increase Body Collagen to Augment Beauty

You probably know that adding body collagen directly reduces wrinkles, increases skin elasticity and adds vital moisture to your skin. Indirectly, collagen thickens and strengthens your hair. You may also know that collagen production slows by 1% per year after the age of 21. By age 30, the signs become visible. So how do you get the collagen back?

How Do I Get My Collagen Back?

Some people think that simply eating collagen might be the way to go. But the scientific reality is, collagen is a protein. When you ingest collagen, such as in pills or powders, your body sees it as chicken, fish, steak or any other protein. It breaks it down and uses it as food. If you want the real beauty benefits of collagen, you have to generate it, not eat it.

biosilusa.com

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† Based on clinical testing on the forearm and forehead.

How Can I Generate My Own Collagen?

The key to generating collagen is to activate your body's own collagen-generating cells – known as fibroblasts. Now here's the good news. BioSil Hair Skin Nails is clinically proven to increase collagen formation, creating collagen with your own DNA fingerprint! Of course, the real proof is the results you'll see.

Results of the Landmark BioSil Clinical Trial

In the double-blind, placebo-controlled clinical trial, the women taking BioSil reduced wrinkles by 30%, increased skin elasticity by 89%, thickened and strengthened hair by 13% and dramatically strengthened nails compared to the women not taking BioSil. When you want genuine visible beauty results from collagen, generate it, don't eat it. Experience the beautiful difference for yourself!



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THERACURMIN

THE JOINT HEALTH SPICE

Study shows Theracurmin is the first form of curcumin to improve joint health

Curcumin—the yellow pigment of the spice turmeric (*Curcuma longa*)—has demonstrated significant health benefits in many experimental studies. Unfortunately, its clinical effects have been limited because of poor absorption in humans. But that's changing, thanks to Theracurmin, a form of curcumin that is well absorbed in the body. This increased absorption allows us to take advantage of curcumin's many health benefits.

More than a dozen double-blind studies have now shown Theracurmin to produce a wide range of beneficial effects, including on heart and liver health, muscle fatigue, skin moisture content, mood, and vascular elasticity. Now, a new study of Theracurmin conducted by researchers from the orthopedics division at Kyoto Medical Center in Japan is the first double-blind study confirming the health benefits of curcumin in improving joint function.

BACKGROUND

As of October 2014, more than 5,000 scientific studies had focused on curcumin. Its primary biological effects relate to its

action as a broad-spectrum antioxidant and profound anti-inflammatory agent. Its use in clinical trials has been limited due to poor oral absorption in humans.

Theracurmin is the most bioavailable form of curcumin.[‡] It's capable of increasing blood levels of curcumin significantly more than other forms. It is a colloidal mixture produced by reducing the particle size of curcumin by over 100 times and emulsifying it with a natural vegetable gum.

Detailed studies have shown that Theracurmin is not only better absorbed, but also stays in the blood far longer than any other commercial form of curcumin. Studies have also shown it to be extremely safe, with no significant side effects or drug interactions noted.

NEW DATA

The most common form of arthritis is osteoarthritis, which is also referred to

[‡]Scientific scrutiny revealed that Theracurmin was more bioavailable on a milligram-to-milligram basis than other leading[°] enhanced and regular forms of curcumin.

[°]As measured by SPINS 2014 data



as degenerative joint disease. It is a slow, destructive process of the joints that affects millions of people worldwide. Osteoarthritis is usually treated with analgesics and nonsteroidal anti-inflammatory drugs (NSAIDs), but these drugs sometimes cause serious gastrointestinal and cardiovascular adverse events, especially with long-term use. Furthermore, these drugs may also impair cartilage formation, thereby leading to greater joint destruction.

Curcumin has been suggested as a natural way to not only decrease joint pain, but also to slow the progression of osteoarthritis. To test this hypothesis, researchers at Kyoto Medical Center enrolled 50 patients over 40 years old with knee osteoarthritis confirmed by X-ray. The patients took either Thera-

curmin providing 180 mg per day of curcumin or a placebo daily for 8 weeks. Blood biochemistry analyses were performed before and after 8 weeks of each intervention to evaluate safety. The patients' knee symptoms were evaluated at 0, 2, 4, 6, and 8 weeks.

The results? In people with moderate to severe symptoms, knee pain scores were significantly lower in the Theracurmin group than in the placebo group. Theracurmin also decreased the use of celecoxib (Celebrex) much more significantly than placebo. While 60 percent of the placebo group still relied on Celebrex for adequate pain relief at the 8-week mark, only 32 percent of the Theracurmin group still needed the NSAID, and data suggested

THERACURMIN

they'd be able to discontinue it eventually. No major side effects were observed in the patients taking Theracurmin.

These results show that Theracurmin may safely help many people with osteoarthritis improve symptoms and decrease need for NSAIDs.

MOVING FORWARD

This study is extremely significant for several reasons. First, it shows that if a highly absorbable form of curcumin is used, meaningful clinical improvement in pain and joint function can be achieved. And it's important to note that more significant improvements occurred in those with the greatest degree of discomfort. Second, to show such a significant advantage over a placebo in such a short-term study in osteoarthritis is very impressive. There are published studies with other forms

of curcumin in arthritis, but these studies are not double-blind, placebo-controlled studies. Instead, these studies are open trials in which both the physician and patient know what is being used as treatment. Open-label trials in osteoarthritis are generally not considered meaningful because there is such a high placebo rate with any new treatment in osteoarthritis. In fact, about 60 to 70 percent of people in the placebo group experience significant improvement in both objective and subjective measures of joint pain and function.

Double-blind, placebo-controlled studies are designed to show the true treatment effect above and beyond any placebo response. Generally in osteoarthritis, this requires a much larger study group and much longer periods of time. Therefore, for Theracurmin to show such clear benefit in this relatively small, short-term study bodes well for people with osteoarthritis gaining immediate and noticeable benefits out in the real world.



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-Dr. Marita

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Dr. Marita Schauch, N.D.

Dr. Marita Schauch is an expert on women's health and, in addition to her clinical practice, keeps a busy lecture schedule. Dr. Marita is the co-author of *The Adrenal Stress Connection*, author of *Making Sense of Women's Health* and her latest book *Collagen Myths & Misconceptions*. She is also a women's health educator for Natural Factors.

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HEALTHY WEIGHT

AMPk'ING UP WEIGHT LOSS

If you've ever tried to lose weight, you know it's anything but easy. But what if it were? What if losing weight were as simple as turning on an enzyme to magically burn fat and turn up our metabolism? Well, scientists may have found this master switch for weight loss in the form of an enzyme called AMP-activated protein kinase (AMPk). The activity of this hormone goes a long way in explaining why some people have no problem maintaining their ideal body weight, while others fight a major battle to lose weight and keep it off.

WHAT IS AMP_k AND WHY IS IT IMPORTANT?

AMPk is found inside every cell and serves as a “master regulating switch” in energy metabolism. This enzyme plays a



Legumes are a good source of water-soluble, viscous fiber.

major role in determining our body fat composition and especially the amount of visceral “belly” fat we carry. Its activity is also tied to our life expectancy. When we are young, AMPk is more activated, but as we age, the cellular AMPk activation decreases. This leads to visceral fat accumulation and loss of muscle mass.

The good news is that researchers are discovering natural ways to enhance AMPk. Specifically, certain dietary strategies and food components greatly influence AMPk activity in a positive way. Not surprisingly, these natural approaches hold great promise in the goal of near effortless weight loss as a result.

THE NUMBER 1 FACTOR THAT INFLUENCES AMP_k ACTIVITY

The activity of AMPk is influenced by a great many factors, including a variety of hormones and dietary choices. That said, the most important influencer of AMPk activity ultimately appears to be the sensitivity of cells to the hormone insulin. Hence, with insulin resistance comes reduced AMPk activity.

Insulin resistance is closely tied to abdominal obesity. If your waist circumference is larger than your hip

circumference, there is a strong likelihood that you suffer from insulin resistance. As the number and size of fat cells increase, they lead to a reduction in the secretion of compounds that promote insulin action, including adiponectin, a novel protein produced by fat cells. Making matters even worse, the secretion of resistin increases, dampening the effect of insulin.

Adiponectin increases the activation of AMPk, while resistin impairs AMPk activity. So while adiponectin is associ-

ated with improved insulin sensitivity and metabolism, resistin is associated with poor blood sugar control, increased blood lipids, and the development of atherosclerosis. All of these effects are due to the influence these compounds have on AMPk activity.

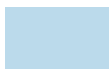
The first step in improving AMPk is to work to improve insulin sensitivity. By doing so, the process results in increasing adiponectin levels and lowering resistin levels, which in turn leads to AMPk activation. Simple, right?

HOW DO YOU KNOW IF YOU HAVE INSULIN RESISTANCE?

One of the most useful ways to determine insulin resistance is by simply measuring your waist-to-hip ratio. A waist-to-hip ratio above 1.0 for men and above 0.8 for women is highly predictive of insulin resistance.

To determine your waist to hip ratio,

Measure the circumference of your waist:



Measure the circumference of your hips:



Divide the waist measurement by the hip measurement:

$$\text{WAIST} \div \text{HIP} = \square$$



HEALTHY WEIGHT

IMPROVING INSULIN SENSITIVITY

Improving insulin sensitivity is most successfully done with a combination of lifestyle changes, such as increasing physical activity, improving diet and nutrition, and using targeted nutritional supplements. One of the most important dietary and supplement strategies is increasing the intake of water-soluble, viscous fiber. This type of fiber is associated with increasing the sensitivity of tissues to insulin and improving the uptake of glucose by the muscles, liver, and other tissues, thereby preventing a sustained elevation of blood sugar. Particularly good sources of water-soluble, viscous fiber are legumes (beans), oat bran, nuts, seeds, psyllium seed husks, pears, apples, and most vegetables.

For people with definite insulin resistance and poor blood sugar control, I

CONSEQUENCES OF LOW AMPK ACTIVITY

- Accelerated aging
- Chronic inflammation
- High blood cholesterol and triglycerides
- Increased visceral belly fat
- Insulin resistance
- Mitochondrial insufficiency and dysfunction
- Neurodegeneration
- Obesity
- Poor blood sugar control

also recommend taking a dietary fiber supplement known as PolyGlycopleX or PGX. This unique, patented fiber matrix exerts the greatest degree of viscosity and gel-forming properties, making it many times more effective than any other fiber at improving insulin sensitivity and activating AMPk. PGX is backed by more than 10 years of research and development, along with extensive preclinical studies and clinical trials conducted in the United States, France, and Germany. PGX is 100 percent natural, nonaddictive, and safe for consumption with no serious side effects. Detailed clinical studies have shown that PGX exerts the following benefits:

- reduces appetite and promotes effective weight loss;
- stabilizes blood sugar control;
- increases insulin sensitivity;
- reduces the glycemic index of any food, beverage, or meal by 35 to 50 percent; and
- lowers blood cholesterol and triglycerides

The typical dosage for PGX is 2.5 to 5 g before meals. PGX is available in a variety of forms, including granules and capsules as well as in bars and drink mixes.

OTHER RECOMMENDATIONS TO ACTIVATE AMPK

In addition to viscous dietary fiber, there are a number of very important steps to activate AMPk. Most notable are reducing total caloric intake and increasing regular “vigorous” exercise. It is also interesting

FACTORS THAT INHIBIT AMPK

- High-fat diet
- Excess caloric intake
- Sedentary lifestyle
- Aging

ACTIVATORS OF AMPK

- Intense exercise
- Calorie restriction
- Thyroid hormone
- Adiponectin
- Highly viscous dietary fiber (PGX)
- Good oils
 - Olive oil (and polyphenols)
 - EPA+DHA
- Mitochondrial enhancers
 - Creatine
 - Carnitine
 - Alpha lipoic acid
 - Coenzyme Q10
- Various flavonoids/polyphenols
 - Green tea
 - Resveratrol
 - Curcumin
 - Genistein
 - Anthocyanins
 - Procyanidolic oligomers
- Numerous botanicals
 - Mulberry leaf
 - Cinnamon
 - Berberine

that many components of the traditional Mediterranean diet activate AMPk. In particular, olive oil, resveratrol from red wine, and the omega-3 fatty acids EPA and DHA from fish oil help activate AMPk.

Several botanicals also activate AMPk. The one that appears to really stand out is mulberry leaf extract. The mulberry plant (*Morus alba*) is probably best known as the food for silkworms, but

it has also been highly regarded in traditional Chinese and Japanese medicine. Recently, human clinical studies have confirmed the benefits of mulberry leaf extract in helping to improve blood sugar control, promote weight loss, and prevent and treat type 2 diabetes. It also exerts favorable actions against metabolic syndrome and cardiovascular disease. Many of these effects of mulberry leaf extract are likely due to its positive influence on AMPk activity.

HEALTHY WEIGHT

GETTING THE MOST OUT OF GREEN TEA TO ACTIVATE AMPK

The weight loss–promoting effects of green tea are attributed to a group of compounds referred to as catechins or polyphenols. These compounds activate AMPk. The caveat, however, is that these compounds are often difficult for humans to absorb efficiently.

One method to improve the absorption of these valuable compounds is by forming a phytosome—an herbal product in which plant compounds are complexed directly with phosphatidylcholine, the chief ingredient of lecithin. In the case of green tea phytosome, a high-quality decaffeinated green tea extract standardized for polyphenols is complexed to phosphatidylcholine. The result is three to five times better absorption. Better absorption means better results.

The superiority of the phytosome form of green tea for weight loss was proven in a double-blind study published in *Alternative Medicine Review* in 2009. The study involved 100 overweight people. Half received the green tea phytosome (150 mg twice daily) and the other half received a placebo. Both groups were placed on reduced-calorie diets (approximately 1,850 calories/day for men and 1,350 calories/day for women). After 90 days on the reduced-calorie diet, the average weight loss in the control group was 9.9 pounds. In contrast, the group taking the green tea phytosome lost on



average a whopping 30.1 pounds—more than triple the weight loss of those in the control group! There was a 10 percent reduction in the green tea phytosome group’s belly fat compared with a 5 percent reduction in the control group. Male participants did even better in this category, showing a 14 percent reduction in waist circumference, compared with a 7 percent reduction in the control group.

The significance of this study is obvious: While people can lose considerable weight by eating fewer calories, the addition of green tea phytosome can triple the success.

TURNING ON THE WEIGHT LOSS SWITCH

If you’ve tried to lose weight and have struggled to take it off and keep it off, it could be that you’re going about it the wrong way. In addition to exercising and following a healthy, Mediterranean-style diet, consider the other suggestions here to turn on your “weight loss switch”—the enzyme AMPk.



Focus.

On the sun.

On the science.

On the crystal clear quality

that stands alone.

Suntheanine promotes focus, attention and clarity. Proven to reduce stress, Suntheanine also improves the quality of sleep, heightens mental acuity and reduces the negative effects of caffeine.* Discover the benefits for yourself at Suntheanine.com.

Suntheanine

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INSOMNIA

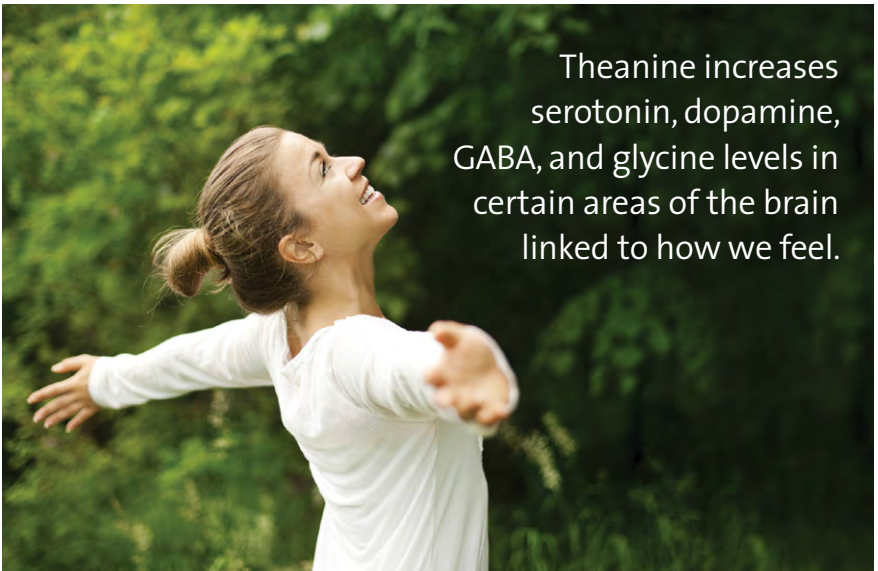
HOW L-THEANINE IMPROVES SLEEP QUALITY

Do you have trouble falling asleep at night—or falling back to sleep after waking in the middle of the night—because you just can't stop the thoughts racing through your mind? Fortunately, there is a safe and effective way to quiet the internal chatter and get a good night's sleep. The answer is L-theanine, and for many people it feels like a lifesaver.

L-theanine is a unique amino acid found almost exclusively in green tea (*Camellia sinensis*). Over the past decade, L-theanine has emerged as one of the

premier natural products to help people suffering from stress and/or anxiety. It is also often used to improve sleep quality, especially in people who seem to have a tough time turning off their minds at night.

L-theanine is very popular in Japan, where it is an approved aid to conquer stress and promote relaxation. It appears in functional foods and beverages, as well as dietary supplements designed to produce mental and physical relaxation without inducing drowsiness.



Theanine increases serotonin, dopamine, GABA, and glycine levels in certain areas of the brain linked to how we feel.



L-THEANINE AND THE BRAIN

Clinical studies have demonstrated that L-theanine reduces stress, improves the quality of sleep, diminishes the symptoms of premenstrual syndrome, heightens mental acuity, and reduces the negative side effects of caffeine. These clinical effects are directly related to L-theanine's effects on the brain.

Theanine is structurally similar to the amino acid and neurotransmitter glutamine. It is able to bind to glutamine receptors in the brain, though not as strongly as glutamine. Once bound, theanine will actually promote glutamine-like effects in some cases and act to block others. It is quite an interesting phenomenon. Theanine also increases serotonin, dopamine, GABA, and glycine levels in certain areas of the brain linked to

L-theanine was shown to produce statistically significant improvements in sleep efficiency, an index of actual sleep time enjoyed between the time of falling asleep and nighttime awakenings.

how we feel. These complex mechanisms are thought to offer an explanation as to why L-theanine makes people feel calmer, with greater mental clarity and focus.

One of the net effects of the action of L-theanine on the brain is that it stimulates the production of alpha brain waves. These brain waves are increased
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INSOMNIA



DOSAGE INFORMATION

L-theanine is fast-acting. Generally, the effects are felt within the first 30 minutes and have been shown to last up to 8 to 12 hours. For immediate needs, taking L-theanine in a chewable tablet seems to produce quicker results via nearly instant transport to the brain.

Based on the results of numerous clinical studies, L-theanine is effective in the range of 50 to 200 mg. For higher levels of stress, 100 to 200 mg one to three times daily may be appropriate. Although L-theanine is completely safe and without any known adverse drug interaction, as a general guideline it is recommended to take no more than 600 mg within a 6-hour period and no more

than 1,200 mg within a 24-hour period. At typical dosages (100 to 200 mg), L-theanine does not act as a sedative, but it does significantly improve sleep quality. It is also an excellent synergist to melatonin and 5-HTP (5-hydroxytryptophan) in promoting sleep.

SAFETY AND DRUG INTERACTIONS

L-theanine has been shown to be safe and without side effects based on numerous safety studies and clinical trials. There are no known drug interactions with L-theanine. In fact, L-theanine seems to support the action of anti-anxiety medications, based upon a 2011 study published in the *Journal of Clinical Psychiatry*.

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by meditation and when we are “centered.” L-theanine will also reduce the level of the beta-waves associated with nervousness, scattered thoughts, and hyperactivity.

BETTER SLEEP QUALITY

L-theanine does not act like a typical sedative, but it can help quiet the mind and help you get a better night’s sleep. To illustrate this benefit, let’s take a look at a study in adolescent boys with attention deficit hyperactivity disorder (ADHD) conducted at the University of British Columbia. In the double-blind trial, 98 boys with ADHD were given either L-theanine or a placebo for six

weeks. The dosage of the L-theanine was 200 mg twice daily in a chewable tablet. In addition to subjective measurement of sleep quality, the researchers also used a movement monitor known as an Actigraph to gauge the effects on sleep. The results showed that the boys who took L-Theanine achieved significantly higher sleep percentage and sleep efficiency scores.

In another double-blind study conducted in Japan, L-theanine at a dosage of 200 mg was shown to produce statistically significant improvements in sleep efficiency, an index of actual sleep time enjoyed between the time of falling asleep and nighttime awakenings.

L-THEANINE ACTIONS

- Increases brain serotonin, dopamine, and GABA levels
- Counteracts some stimulatory effects of caffeine
- Produces mental and physical relaxation without drowsiness
- Improves learning and memory
- Reduces feelings of stress
- Improves sleep quality
- Diminishes symptoms of premenstrual syndrome
- Increases production of alpha brain waves





TURN DOWN THE HEAT!

Herbs Can Help With Hot Flashes

By Marita Schauch, ND

Menopause brings with it a host of changes to the body that surface in varying degrees. Of all the menopausal symptoms that women can experience before, during, and after menopause, there is likely one that stands out for the majority—hot flashes! It's estimated that at least 75 percent of all women going through menopause experience hot flashes, and 85 percent of those women will have hot flashes for a year or more. And if you are one of the many, you know how uncomfort-

able they can be. It feels like someone is turning up the heat in your body as that flushing sensation starts in the face or chest and then spreads from there. In addition to intense sweating, there can also be a rapid heartbeat and a reddening of the face.

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Conventional medical solutions come with their own set of issues, but fortunately there are other natural options.



THE ULTIMATE

STRESS

NEUTRALIZER

Stress has become part of the fabric of daily life. Everyday hassles associated with money, work, and family life contribute to stress, anxiety, and fatigue... and that's not healthy.

Sensoril® is the industry's best selling, patented, standardized extract of the legendary Ayurvedic botanical, Ashwagandha. GRAS-affirmed Sensoril® is clinically proven to help relieve the negative effects of stress which is why it's the mood-enhancing nutraceutical of choice for consumers, formulators and leading dietary supplement brands.

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Conventional medical solutions come with their own set of issues, but fortunately there are other natural options. I have spent years studying herbs and nutrients that can help women deal with their hot flashes naturally, and two herbs in particular stand out.

THE BEAUTY OF BLACK COHOSH

The herb black cohosh can support a woman's hormonal health in a variety of ways, including helping with hot flashes. In addition, studies have shown that it can help reduce night sweats and improve sleep issues. Black cohosh can also help with premenstrual syndrome, painful menstruation, hormonal headaches, and vaginal dryness.



Dong quai

ADDITIONAL SUPPORT

Dong quai is an herb that has been used for centuries in Asia to support female hormonal health. It has specifically been shown to help reduce hot flashes, as well as painful menstruation.

Other herbs and nutrients have also been shown to reduce hot flashes, including gamma-oryzanol, hesperidin, and chasteberry. For this reason, I recommend WomenSense® MenoSense® to my female patients. This dietary supplement contains all these natural ingredients to safely reduce hot flashes and support hormonal health.

During times of change, the body may need a little extra support. By using a combination of natural ingredients, women will be able to turn down the heat and become comfortable during this important life transition.

DR. MARITA SCHAUCH is an expert on women's health and, in addition to her clinical practice, keeps a busy lecture schedule. Dr. Schauch is the author of *Making Sense of Women's Health and Collagen Myths & Misconceptions* and co-author of *The Adrenal Stress Connection*. She is also a women's health educator for *Natural Factors*.

Doctor Recommended and Formulated NATURAL SOLUTIONS FOR STRESS

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